

YOU CAN PREVENT PESTICIDE ACCIDENTS!

• The first rule of safety is: *read and follow the directions and precautions on the label.* Do this each time you use a pesticide; don't depend on your memory.

• Before purchasing a pesticide, make sure it is recommended for use on your plants and against the pests you want to control.

• Mix or dilute sprays outdoors, or where there is adequate ventilation. Keep people and pets away from areas where you are mixing or applying pesticides. Never spray or dust on a windy day.

• If you spill a pesticide on skin or clothing, wash with soap and water and change clothing immediately. In handling any pesticide, avoid prolonged contact with your skin, and check the label to see if special protective measures are recommended.

• Do not transfer pesticides to pop bottles or any other containers. Never store them near food, feed, seed, medicines, or where they might be mistaken for harmless chemicals. Keep pesticide out of the reach of children or pets.

• Wrap empty pesticide containers in heavy layers of newspapers and put them in the trash can. If trash collection service is not available, dispose of containers at a sanitary land-fill dump or bury them in a level, isolated place where they will not contaminate water supplies. Do not burn "empties" since pesticide particles and fumes can endanger your family and neighbors.

• Report pesticides sold interstate without a USDA registration number on their label to the Director, ARS Pesticides Regulation Division, Washington, D.C. 20250.

PESTICIDES REGULATION DIVISION
AGRICULTURAL RESEARCH SERVICE
U.S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250



CHROMOSOME COMMENTS Dr. S. C. Harlan.

I have read with interest the article on chromosomes of members of the natural order Malvaceae, by Paul F. White. A few comments may be made. First he gives the chromosome number of Hibiscus Rosa-sinensis (cultivar Brilliantissimus) as $n=46$. This number is at variance with that found by Skovsted in another variety, $2n=168$. He recorded H. Storckii from Fiji as $2n=84$, and the chromosome number of H. Waimeae from Hawaii is known to be $2n=84$. The latter has been crossed extensively in Hawaii with Rosa-sinensis and practically all modern varieties probably have genes from this species.

We may regard Waimeae as the diploid and the variety used by Skovsted as the tetraploid. The variety Brilliantissimus used by White seems to be an aneuploid. When one deals with high chromosome numbers, a few extra chromosomes can be tolerated.

The cross of Waimeae and Rosa-sinensis, gave the variety Strawberry Ice. I made this cross in 1925 in Trinidad, and it is now scattered pretty well all over the world. According to what has been said above, it should be a triploid, and as such, sterile with tetraploids, which it is. However, although female sterile it can be back crossed with Waimeae, and has also been crossed with White Wings.

It seems pretty certain that many of the newer varieties with huge flowers and large thick leathery leaves are hexaploids or octoploids. It would therefore be worth while making extensive counts of the chromosome numbers of a large number of modern varieties.

Regarding the crossability of Rosa-sinensis with other members of the family Malvaceae, Rosa-sinensis would not graft onto Syriacus, and consequently would certainly not cross with it. Skovsted mentions that Malvaciscus and Rosa-sinensis will intergraft and there is therefore a chance of successful crossing.

(Next page please)